

U.S.S.N. 09/820,107

Listing of The Claims

Please cancel claims 12-18 without prejudice.

1. (Previously Presented) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen comprising:

a wafer carrier for holding and rotating a wafer mounted thereon with a first surface to be polished exposed and facing downwardly;

a continuous belt for mounting a plurality of polishing pads thereon;

a motor means for providing rotational motion in a predetermined direction of said continuous belt; and

a support platen situated juxtaposed to a bottom surface of said continuous belt corresponding to a position of said wafer carrier so as to force said polishing pad against said first surface of the wafer, said support platen having a predetermined thickness, a plurality of apertures therethrough and a plurality of openings in a top surface in fluid communication with a gas source through said plurality of apertures, said plurality of openings having different diameters.

U.S.S.N. 09/820,107

2. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 1, wherein said plurality of openings in said top surface being arranged in a plurality of concentric circles.

3. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 1, wherein said plurality of openings in said top surface being arranged in at least three concentric circles.

4. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 1, wherein said plurality of openings in said top surface being arranged in about six concentric circles.

5. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 1, wherein each of said plurality of openings having a diameter between about 0.1 mm and about 10 mm.

U.S.S.N. 09/820,107

6. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 1, wherein each of said plurality of openings having a diameter preferably between about 1 mm and about 5 mm.

7. (cancelled)

8. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 3, wherein said plurality of openings arranged in at least three concentric circles being controlled in at least three zones with each zone controlling a plurality of openings in the same concentric circle.

9. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 8 further comprising a pressure detector and a flow regulator for each of said at least three zones.

U.S.S.N. 09/820,107

10. (Original) A linear chemical mechanical polishing apparatus equipped with a programmable pneumatic support platen according to claim 8 further comprising a process controller for detecting and regulating a pressure and a flow rate of said gas flow in each of said at least three zones.

11. - 18. (Cancelled)